

WHAT IS CLAIMED IS:

1. A method for forming a tissue product comprising:
 providing a liquid furnish of cellulosic fibers;
 forming a multi-layered wet web from said liquid furnish of cellulosic
 5 fibers;

applying a debonder to said furnish, said wet web, or combinations
 thereof;

applying at least one latex having a glass transition temperature
 less than about 30°C to said liquid furnish, said wet web, or combinations
 10 thereof, said latex being applied in an amount less than about 60 pounds
 per ton of the dry weight of said cellulosic fibers; and

drying said wet web, wherein at least one outer layer of said dried
 web contains said latex-treated cellulosic fibers.

2. A method as defined in claim 1, wherein the glass transition
 15 temperature of said latex is greater than about -25°C.

3. A method as defined in claim 1, wherein the glass transition
 temperature of said latex is between about -15°C to about 15°C.

4. A method as defined in claim 1, wherein the glass transition
 temperature of said latex is between about -10°C to about 0°C.

20 5. A method as defined in claim 1, wherein said latex is selected
 from the group consisting of styrene-butadiene copolymers, polyvinyl
 acetate homopolymers, vinyl-acetate ethylene copolymers, vinyl-acetate
 acrylic copolymers, ethylene-vinyl chloride copolymers, ethylene-vinyl
 chloride-vinyl acetate terpolymers, acrylic polyvinyl chloride polymers,
 25 acrylic polymers, and nitrile polymers.

6. A method as defined in claim 1, wherein said latex is applied in
 an amount of between about 1 to about 40 pounds per ton of the dry
 weight of said cellulosic fibers.

7. A method as defined in claim 1, wherein said latex is applied in

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an amount of between about 1 to about 20 pounds per ton of the dry weight of said cellulosic fibers.

8. A method as defined in claim 1, wherein said debonder is applied prior to said latex.

5 9. A method as defined in claim 1, further comprising applying a wet strength agent to said furnish, said wet web, or combinations thereof;

10 10. A method as defined in claim 9, wherein said wet strength agent is applied prior to said latex.

10 11. A method as defined in claim 9, wherein said wet strength agent includes a temporary wet strength agent.

15 12. A method as defined in claim 11, wherein said temporary wet strength agent comprises a cationic polyacrylamide polymer.

15 13. A method as defined in claim 11, wherein said temporary wet strength agent is applied in an amount between about 1 to about 60 pounds per ton of the dry weight of said cellulosic fibers.

20 14. A method as defined in claim 9, wherein said wet strength agent includes a permanent wet strength agent.

20 15. A method as defined in claim 14, wherein said permanent wet strength agent comprises a cationic polyamide polymer.

25 16. A method as defined in claim 14, wherein said permanent wet strength agent is applied in an amount between about 1 to about 20 pounds per ton of the dry weight of said cellulosic fibers.

25 17. A method as defined in claim 1, wherein said debonder includes an imidazoline quaternary compound.

30 18. A method as defined in claim 1, wherein said debonder includes an ester-functional quaternary ammonium compound.

30 19. A method as defined in claim 1, wherein said debonder is applied in an amount between about 1 to about 30 pounds per ton of the dry weight of said cellulosic fibers.

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20. A method as defined in claim 1, wherein greater than about 60% of said latex is retained on said cellulosic fibers.

21. A method as defined in claim 1, wherein between about 75% to about 90% of said latex is retained on said cellulosic fibers.

5 22. A method as defined in claim 1, wherein said latex is sprayed onto said wet web.

23. A method for forming a tissue product comprising:
providing a liquid furnish of cellulosic fibers;
forming a multi-layered wet web from said liquid furnish of cellulosic
10 fibers;

applying a debonder to said furnish, said wet web, or combinations thereof, in an amount between about 1 to about 30 pounds per ton of said cellulosic fibers;

15 applying a wet strength agent to said furnish, said wet web, or combinations thereof, said wet strength agent being selected from the group consisting of temporary wet strength agents, permanent wet strength agents, and combinations thereof;

20 applying at least one latex to said furnish, said wet web, or combinations thereof in an amount between about 1 to about 40 pounds per ton of the dry weight of said cellulosic fibers, said latex having a glass transition temperature less than about 30°C and greater than about -25°C; and

drying said wet web, wherein at least one outer layer of said dried web contains said latex-treated cellulosic fibers.

25 24. A method as defined in claim 23, wherein the glass transition temperature of said latex is between about -15°C to about 15°C.

25. A method as defined in claim 23, wherein the glass transition temperature of said latex is between about -10°C to about 0°C.

26. A method as defined in claim 23, wherein said latex is selected

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from the group consisting of styrene-butadiene copolymers, polyvinyl acetate homopolymers, vinyl-acetate ethylene copolymers, vinyl-acetate acrylic copolymers, ethylene-vinyl chloride copolymers, ethylene-vinyl chloride-vinyl acetate terpolymers, acrylic polyvinyl chloride polymers, acrylic polymers, and nitrile polymers.

27. A method as defined in claim 23, wherein said debonder is applied prior to said latex.

28. A method as defined in claim 23, wherein said wet strength agent is applied prior to said latex.

29. A method as defined in claim 23, wherein greater than about 60% of said latex is retained on said cellulosic fibers.

30. A method as defined in claim 23, wherein between about 75% to about 90% of said latex is retained on said cellulosic fibers.

31. A method as defined in claim 23, wherein said latex is sprayed onto said wet web.

32. A method as defined in claim 23, wherein said latex is applied in an amount between about 1 to about 20 pounds per ton of the dry weight of said cellulosic fibers.

33. A tissue product having a basis weight less than about 80 grams per square meter, said tissue product comprising a multi-layered paper web having at least one outer layer that defines an outer surface of the tissue product, said outer layer being formed from cellulosic fibers, said cellulosic fibers being applied with a debonder, a wet strength agent, and at least one latex having a glass transition temperature less than about 30°C and greater than about -25°C, said latex comprising less than about 3% of the dry weight of said outer layer.

34. A tissue product as defined in claim 33, wherein said latex comprises between about 0.05% to about 2% of the dry weight of said outer layer.

35. A tissue product as defined in claim 33, wherein said latex comprises between about 0.05% to about 1% of the dry weight of said outer layer.

36. A tissue product as defined in claim 33, wherein the glass transition temperature of said latex is between about -15°C to about 15°C.

37. A tissue product as defined in claim 33, wherein the glass transition temperature of said latex is between about -10°C to about 0°C.

38. A tissue product as defined in claim 33, wherein the remaining layers of said multi-layered paper web are substantially free of said latex.

39. A facial tissue as defined in claim 33.

40. A bath tissue as defined in claim 33.

41. A bath tissue as defined in claim 40, wherein said wet strength agent consists essentially of a temporary wet strength agent.

42. A paper towel as defined in claim 33.

43. A tissue product having a basis weight less than about 80 grams per square meter, said tissue product comprising a multi-layered paper web having at least one outer layer that defines an outer surface of the tissue product, said outer layer being formed from cellulosic fibers, said cellulosic fibers being applied with a debonder, a wet strength agent, and at least one latex having a glass transition temperature less than about 30°C and greater than about -25°C, said latex comprising less than about 3% of the tissue product.

44. A tissue product as defined in claim 43, wherein said latex comprises between about 0.05% to about 2% of the dry weight of said outer layer.

45. A tissue product as defined in claim 43, wherein said latex comprises between about 0.05% to about 1% of the dry weight of said outer layer.

46. A tissue product as defined in claim 43, wherein the glass

47. A tissue product as defined in claim 43, wherein the glass transition temperature of said latex is between about -10°C to about 0°C.

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